Transportation 2035 Equity Analysis Preliminary Results

MCAC Transportation 2035
Equity Analysis Subcommittee

November 13, 2008

Review: Purpose of Analysis

- Evaluate whether low-income and minority communities share equitably in benefits of Transportation 2035 Plan without bearing disproportionate share of burdens
- Program-level analysis
- Refine and build on methods of previous RTP Equity Analyses
- Today's discussion: Review results, initial feedback

Review: What We Heard

- More thorough short-term assessment of current mobility and accessibility levels in low-income/minority communities should complement long-range planning analysis
  - Updated demographic and socioeconomic trends incorporated into T-2035 Equity Analysis report
  - Snapshot analysis for 2009
- Create opportunity for involvement in MTC's next-generation travel model development
  - Early 2009 on

Review: Indicators

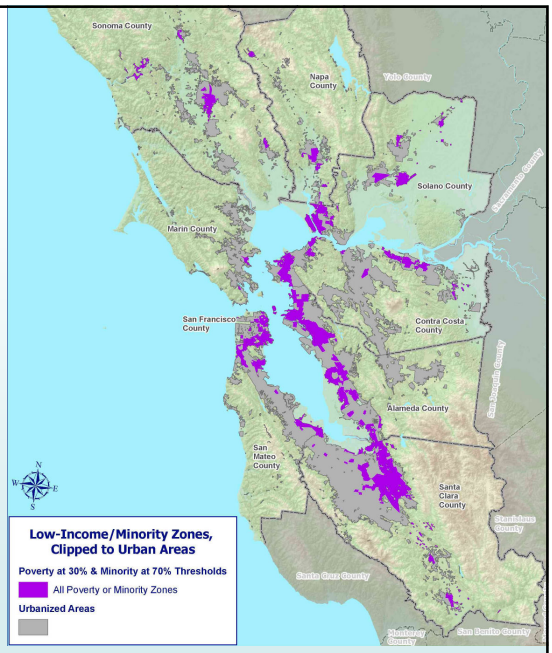
Type of Equity	Indicator	Measure of
Inputs	1. Financial Analysis	Benefit
Outcomes	2. Access to Low-Income Jobs	Benefit
	3. Access to Non-Work Activities	Benefit
	4. Emissions	Burden
	5. Affordability	Either

Review: Methodology

- Inputs: RTP road/highway and transit expenditures allocated to low-income/other households based on low-income/other households' usage of each
- Outcomes: Model-derived regional indicators
  1. Identify communities of concern: Concentrations of minority and low-income households
  2. Aggregate travel model results to either all communities of concern or remainder of region
  3. Compare results for distributional effects

Communities of Concern

- 70% minority population
- 30% low-income population
- Identify regional *concentrations of poverty;* however, indicators also account for presence of lower-income households *throughout region*

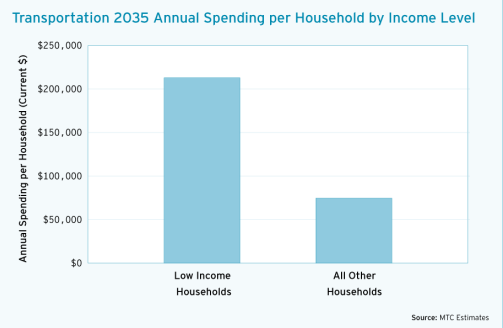


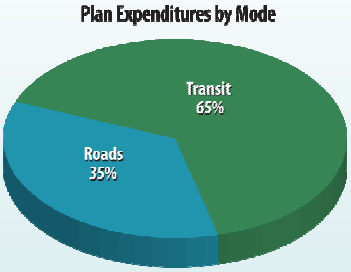
Evaluating the Alternatives

- Focus on Impacts of RTP: Compare Project to No Project
- Focus on Cumulative Impacts: Compare Project to Base Year
- Also examined alternative Pricing and Land Use scenarios for comparison to effects of infrastructure investments in Project

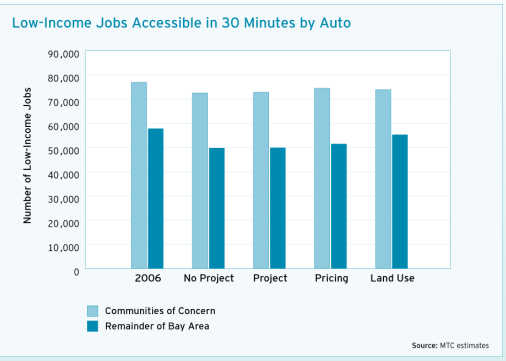
1. Financial Analysis

Preliminary Results





2. Access to Low Income Jobs
within 30 Minutes by Auto

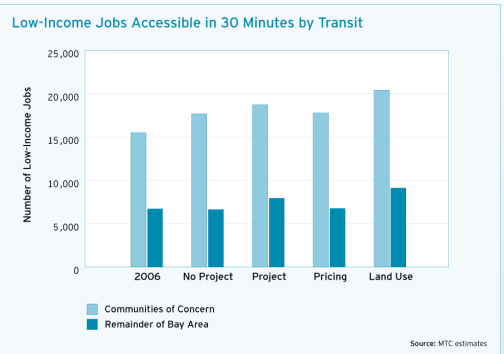


Comparing the Difference

	Project vs. 2006	Project vs. No Project
Communities of Concern	–4,100	+300
Remainder of Region	–7,900	+100

- **Small differences between Project and No Project**

2. Access to Low Income Jobs
within 30 Minutes by Transit



Comparing the Difference

	Project vs. 2006	Project vs. No Project
Communities of Concern	+3,200	+1,000
Remainder of Region	+1,200	+1,300

- **San Francisco accounts for much of gain in Remainder**

2. Access to Low Income Jobs

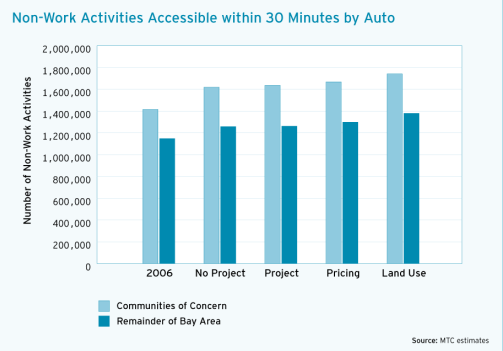
within 30 Minutes by Transit: Another View

Income Group	2006	No Project	Project	Project vs. 2006	Project vs. No Project
Low	11,700	13,700	14,900	+3,200	+1,200
Low-Mod	8,600	9,700	10,900	+2,300	+1,200
High-Mod	7,300	7,900	9,000	+1,700	+1,100
High	7,300	7,800	9,000	+1,700	+1,200

- **Captures the ~50% of region's low-income households that live <u>outside</u> of communities of concern**

3. Access to Non-Work Activities

within 30 Minutes by Auto

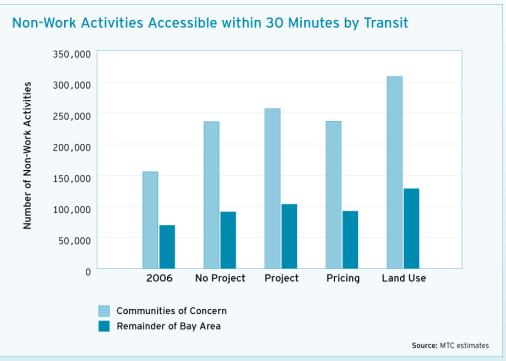


Comparing the Difference

	Project vs. 2006	Project vs. No Project
Communities of Concern	+221,300	+17,800
Remainder of Region	+113,000	+3,200

- **Increases in access to Shopping/Medical/Other and Social/Recreational Activities**

3. Access to Non-Work Activities
within 30 Minutes by Transit



Comparing the Difference

	Project vs. 2006	Project vs. No Project
Communities of Concern	+101,400	+20,900
Remainder of Region	+33,900	+12,300

- **Big gains in population centers**

Narrowing the Accessibility Gap
Ratio of Accessibility by Auto and Transit

	Low-Income Jobs		Non-Work Activities	
	2006	2035	2006	2035
Communities of Concern	5.0	3.9	9.1	6.4
Remainder of Region	8.6	6.3	16.5	12.2
Low-Income	4.0	3.2	8.0	5.7
Not Low-Income	9.5	7.0	16.9	12.5

- **Value of 5.0 means can access 5 times more by auto than transit**
- **1.0 would be equivalent accessibility by auto and transit**

4. Emissions

Mobile Source Air Toxics Emissions Density

Diesel Particulates, Benzene, and Butadiene: Kg per average weekday per square mile

	2006	No Project	Project	Pricing	Land Use
Communities of Concern	5.92	1.29	1.26	1.24	1.29
Remainder of Bay Area	2.26	0.48	0.46	0.47	0.47
Total Region	2.94	0.64	0.61	0.61	0.63

Source: MTC estimates

Comparing the Difference

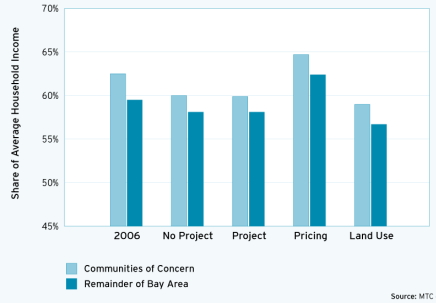
	Project vs. 2006	Project vs. No Project
Communities of Concern	–4.66	–0.04
Remainder of Region	–1.79	–0.02

➢ **Big impact from technology**

5. Affordability

Housing + Transportation Affordability for Low and Moderate-Low Income Households:

Housing and Transportation Costs as Share of Mean Household Income



Source: MTC estimates

Comparing the Difference

	Project vs. 2006	Project vs. No Project
Communities of Concern	–2.5%	–0.1%
Remainder of Region	–1.4%	–0.0%

➢ **Less effect from Project than Pricing or Land Use**

Preliminary Conclusions

- Greater RTP expenditures per low-income household than other households
- Most indicators show similar or greater benefit accruing to low-income households and communities of concern than remainder of region (distributional test)
- Communities of concern have greater accessibility overall, but also closing the "accessibility gap" between auto and transit

Preliminary Conclusions Cont'd

- Bigger benefits come from more compact land use (accessibility) and technology (emissions) than transportation investments
- Affordability measure proved difficult to forecast, but impacts of alternative Pricing and Land Use scenarios were evident

Next Steps

November 20	MCAC Meeting
1st Week of Dec.	Poss. MCAC Equity Analysis Sub. Meeting
December 9	MCAC Meeting
December 12	Planning Committee information item on preliminary Equity Analysis results; Draft RTP released
Late December	Equity Analysis Report available

Questions and Discussion